

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A ~~catheter for topical~~ process for topically cooling a spinal cord of a mammal, composed comprising the steps of:

using a catheter having of a high thermal conductivity and that has the an inner space to circulate a heat-cooling medium therein but has no hole connecting to the outside,

~~wherein it is inserted into an organ or a tissue of a mammal including a human and placed therein thereby to topical cool it selectively and continuously~~

transdermally inserting the catheter into the epidural cavity, the subdural cavity, or the subarachnoid cavity of the spinal cord,

and circulating the heat-cooling medium in the inner space of the catheter to cool the spinal cord across the dura mater or directly.

2. (currently amended): The ~~catheter for topical~~ process of topically cooling the spinal cord according to claim 1, wherein the catheter ~~which is inserted transdermally into the epidural cavity, the subdural cavity, or the subarachnoid cavity of the spinal cord or the brain, and placed therein thereby to topical cool~~ topically cools the spinal cord or the brain ~~selectively and continuously.~~

3. (canceled).

4. (currently amended): The ~~eatheter for topical~~ process of topically cooling the spinal cord according to claim 1, wherein the heat-cooling medium is a cooling water or a cooling gas ~~is circulated as a heat-cooling medium.~~

5. (currently amended): The ~~eatheter for topical~~ process of topically cooling the spinal cord according to claim 1, wherein the catheter has ~~having~~ the shape of a U-form, a disk-form or a swirl-form.

6. (currently amended): The process of topically cooling the spinal cord according to claim 1, wherein the catheter is linked and arranged in series to ~~A device comprising~~ a reservoir for preserving a heat-cooling medium, a pump for delivering said heat-cooling medium, and a heat exchanger for cooling said heat-cooling medium, ~~and a catheter according to claim 1,~~ ~~wherein these are linked and arranged in series~~ by a pipe-shaped tube for circulating said the heat-cooling medium.

7-9. (canceled).

10. (currently amended): The ~~eatheter for topical~~ process for topically cooling the spinal cord according to claim 2, wherein the heat-cooling medium is a cooling water or a cooling gas ~~is circulated as a heat-cooling medium.~~

11. (canceled).

12. (currently amended): ~~The eatheter for topical~~ process for topically cooling the spinal cord according to claim 2, wherein the catheter having has the shape of a U-form, a disk-form or a swirl-form.

13. (canceled).

14. (currently amended): ~~The eatheter for topical~~ process for topically cooling the spinal cord according to claim 4, wherein the catheter having has the shape of a U-form, a disk-form or a swirl-form.

15. (currently amended): The process of topically cooling the spinal cord according to claim 2, wherein the catheter is linked and arranged in series to ~~A device comprising~~ a reservoir for preserving a heat-cooling medium, a pump for delivering said heat-cooling medium, and a heat exchanger for cooling said heat-cooling medium, ~~and a catheter according to claim 2,~~ ~~wherein these are linked and arranged in series by a pipe-shaped tube for circulating said the~~ heat-cooling medium.

16. (canceled).

17. (currently amended): The process of topically cooling the spinal cord according to claim 4, wherein the catheter is linked and arranged in series to ~~A device comprising~~ a reservoir for preserving a heat-cooling medium, a pump for delivering said heat-cooling medium, and a heat exchanger for cooling said heat-cooling medium, ~~and a catheter according to claim 4,~~

~~wherein these are linked and arranged in series~~ by a pipe-shaped tube for circulating said the heat-cooling medium.

18. (currently amended): The process of topically cooling the spinal cord according to claim 5, wherein the catheter is linked and arranged in series to ~~A device comprising a reservoir for preserving a heat-cooling medium, a pump for delivering said heat-cooling medium, and a heat exchanger for cooling said heat-cooling medium, and a catheter according to claim 5,~~ ~~wherein these are linked and arranged in series~~ by a pipe-shaped tube for circulating said the heat-cooling medium.

19. (new): The process of topically cooling the spinal cord according to claim 1, wherein the high thermal conductive material of the catheter is stainless, titanium, aluminum, gold, silver, or copper.